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RESPONSE TO THE ENVIRONMENTAL PROTECTION AGENCY CONCERNS ON THE TREATMENT OF DISCHARGES AT THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

06/04/96

DOE-0909-96
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RESPONSES

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Department of Energy

Ohio Field Office
Fernald Area Office
P. O. Box 538705
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JUN 04 1996

DOE-0909-96

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

RESPONSE TO THE ENVIRONMENTAL PROTECTION AGENCY CONCERNS ON THE TREATMENT OF DISCHARGES AT THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

Reference: 1) Letter DOE-0529-96, Johnny Reising to James A. Saric and Tom Schneider, "Implementation of Operable Unit 5 (OU5) Record of Decision - Treatment of Discharges at the Fernald Environmental Management Project," dated February 16, 1996.

2) Letter, James Saric, U.S. EPA to Johnny Reising, U.S. DOE, "Treatment of Discharges at the FEMP," dated February 28, 1996.

Reference 1 provided to the U.S. Environmental Protection Agency (U.S. EPA) and the Ohio Environmental Protection Agency (OEPA) the Fernald site's proposed method for implementing the conditions found in Section 9.1.5 of the Operable Unit 5 (OU5) Record of Decision (ROD) concerning stormwater management, agency notification, and uranium tracking. In Reference 2, the U.S. EPA indicated our proposed approach for tracking stormwater bypassing was unacceptable. This issue was briefly discussed during the meeting between the Department of Energy (DOE), U.S. EPA, and the OEPA on March 19, 1996. As a result of this meeting, the U.S. EPA and the OEPA requested additional information including a description of past bypass events. Enclosed for your information are details, reproduced from operator logs, for stormwater bypass events from the stormwater Retention Basin (SWRB) directly to the Great Miami River

beginning in February 1995. This date is significant because it represents the initiation of operation of the Advanced Wastewater Treatment (AWWT) System on January 27, 1995.

The SWRB is operated to prevent, to the maximum extent possible, an overflow from the basins to Paddys Run via the Storm Sewer Outfall Ditch (SSOD). The SWRB overflows to the SSOD at a depth of 11.75 feet. According to standard operating procedures operators commence bypassing at a depth of 9.0 feet. Generally, the bypass lasts until the SWRB depth is reduced to 8.0 feet to allow for sequential rainfall events.

During a bypass event, the SWRB pump-out is configured such that as much stormwater as possible continues to be treated through the AWWT. Stormwater is also treated through the Interim-AWWT (IAWWT) with the balance discharged directly to the river. Typically this configuration allows a total SWRB pump-out capacity of approximately 1550 gpm, of which 975 gpm is bypassed directly to the river while 575 gpm is treated through the IAWWT and AWWT.

The above description indicates the Fernald site maximizes the amount of treatment provided during a bypass situation. Additional benefit can be realized by minimizing the amount of stormwater bypassed. This is where the ROD stipulated method of tracking stormwater bypasses becomes important. An accounting system that tracks the number of days mandates that operations, once a bypass commences, continue the bypass to a point that reduces the SWRB depth to a level that can manage a sequential rainfall event and avoid another bypass "day." A preferred accounting of the bypass events would track the number of hours thus allowing operations to pump only to the point at which a margin of safety is attained to prevent an overflow. Simply, this would mean rather than pumping the SWRB down to eight feet to try to avoid another bypass we could pump the SWRB down to only nine feet to just prevent an overflow. This logic is the basis of our request to account for the bypass events by tracking the number of hours.

The DOE advocates the establishment of a rational implementation strategy for addressing this ROD provision. Such a strategy should help promote the current Fernald Environmental Management Project (FEMP) position of minimizing the direct bypassing of untreated storm water. This strategy must be established with full recognition of the availability of a finite storm water retention and treatment capacity at the site. The adopted strategy should maintain flexibility at the operator level to enable them to both comply with the ROD requirements while at the same time minimize untreated discharges to the river.

If you have any question regarding this matter, please contact either John Kappa at (513) 648-3149, or Robert Janke at (513) 648-3124.

Sincerely,

Johnny Reising

Johnny W. Reising
Fernald Remedial Action
Project Manager

FN:Kappa

Enclosure: As Stated

cc w/enc:

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STORMWATER BYPASS EVENTS - FEBRUARY 1995 THROUGH MAY 1996

Event Dates	Duration		Volume Bypassed MG
	days	hours	
February 16, 1995 @ 0620 through February 18, 1995 @ 0845	3	50.4 hrs.	2.908
April 24, 1995 @ 0040 through 1430	1	13.8 hrs.	1.025
May 18, 1995 @ 0500 through May 22, 1995 @ 2325	5	114.4 hrs.	8.411
May 25, 1995 @ 1100 through May 26, 1995 @ 1300	2	26 hrs.	2.255
May 29, 1995 @ 0010 through 2400	1	23.8 hrs.	1.025
August 5, 1995 @ 2215 through August 10, 1995 @ 1220	6	110.1 hrs.	7.092
October 6, 1995 @ 1300 through October 8, 1995 @ 1840	3	52.7 hrs.	3.879
December 19, 1995 @ 1300 through December 20, 1995 @ 1200	2	23 hrs.	1.32
January 18, 1996 @ 2200 through January 19, 1996 @ 1230	2	14.5 hrs.	0.076
January 23, 1996 @ 1930 through January 26, 1996 @ 1200	4	64.5 hrs.	3.682
March 19, 1996 @ 1715 through March 21, 1996 @ 2400	3	54.8 hrs.	3.24
April 28, 1996 @ 2330 through May 3, 1996 @ 0730	6	104.2 hrs.	6.163
May 4, 1996 @ 0450 through May 7, 1996 @ 2355	4	91.08 hrs.	6.189
May 15, 1996 @ 1215 through May 19, 1996 @ 2330	5	107.25 hrs.	4.654
TOTAL	47	850.53	51.919
AVERAGE PER EVENT	4	77.32	4.720